

the astrogram

VOLUME XII NUMBER 15 June 4, 1970

National Aeronautics and Space Administration . Ames Research Center, Moffett Field, California

NASA CV-7A Aircraft Modification Contract

NASA has selected The Boeing Co. in Seattle for final negotiation of a contract for modifying an existing de Havilland CV-7A Buffalo aircraft to provide a vehicle for demonstrating the augmentor wing, jet-flap concept. It is proposed that the test vehicle be flown at Ames in a joint program with the Canadian Department of Industry, Trade and Commerce.

The concept is being investigated for potential use in STOL (short takeoff and landing) jet transports capable of operating on runways as short as 1,500 feet.

Value of the contract is estimated at \$4.5 million. The plane to be modified is owned by NASA and has been used for other aeronautical research.

Ames has been the site of fiveyear cooperative wind tunnel studies in a research effort involving NASA the Canadian government and the de Havilland Aircraft of Canada Ltd., directed at developing the augmentor wing, jet-flap concept.

The propulsion system modifi-

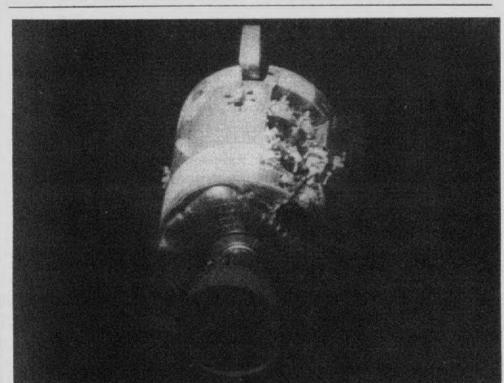
Bloodmobile at Ames June 12

The Santa Clara County Blood-mobile, sponsored by the Palo Alto Chapter of the American Red Cross, will visit Ames on Friday, June 12 from 9 a.m. to 1 p.m. There continues to be an urgent need for blood and all employees who can are asked to participate in this worthwhile program.

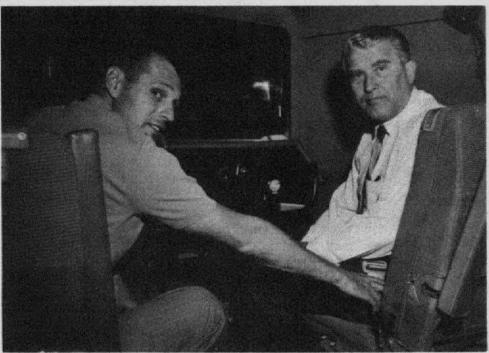
The Red Cross Blood Program is the largest single blood-collecting service in the world, yet is relies entirely upon voluntary donors.

cation is to be performed in Canada while the airframe modification, engine installation and integration is accomplished by Boeing.

The augmentor wing employs a "blown flap" system in which air from a turbofan engine is directed internally along the aircraft wing and expelled through a slot so that it flows between the upper and lower segments of the trailing edge flap. The blown air induces additional air flow from the wing surfaces, providing further lift augmentation.



APOLLO 13 VIEW OF DAMAGED SM... This view of the severely damaged Apollo 13 Service Module was photographed from the Lunar Module/Command Module following SM jettisoning. As seen here, an entire panel on the SM was blown away by the apparent explosion of oxygen tank number two located in Section 4 of the SM. Two of the three fuel cells are visible just forward (above) the heavily damaged area. Three fuel cells, two oxygen tanks, and two hydrogen tanks are located in Sector 4. The damaged area is located above the S-band high gain antenna. Nearest the camera is the Service Propulsion System (SPS) engine and nozzle.



Dr. von Braun visits

DISTINGUISHED VISITOR . . . Dr. Wernher von Braun (right), NASA Deputy Associate Administrator for Planning, visited the Center recently to discuss research activities here. During his tour of facilities he flew the new Flight Simulator for Advanced Aircraft and shot several landings. He is pictured in the cockpit of the simulator with Ames research pilot Glen W. Stinnett, Jr., of the Flight Operations Branch.

Neil Armstrong NASA Aeronautics Head

Neil A. Armstrong, the first man to set foot on the Moon and one of the nation's foremost engineering test pilots, has been named to head NASA's aeronautics program.

Armstrong, commander of the Apollo II lunar landing mission, will become Deputy Associate Administrator for Aeronautics, Office of Advanced Research and Technology at NASA Headquarters, on July 1.

He succeeds Charles W. Harper who is joining Dr. Wernher von Braun, NASA Deputy Associate Administrator, in carrying out the agency's planning effort for future United States space missions. Prior to transferring to headquarters in 1964, Harper had been assigned to Ames since 1941.

In his new position, Armstrong will be responsible for the coordination and management of overall NASA research and technology work related to aeronautics and cooperation and coordination between NASA, industry and other government agencies with respect to aeronautics.

NASA conducts a broad program in aeronautics including aerodynamics, loads and structures, propulsion, operational environment problems and flight dynamics. The program is directed toward all types of aircraft, both civilian and military in the areas of general aviation, vertical and short take-off and landing aircraft, subsonic aircraft, supersonic and hypersonic aircraft and other advanced aviation technologies.

Armstrong, who became a civilian astronaut in 1962, has more than 20 years experience as an engineer and pilot. He was a Naval aviator before joining NASA in 1955.

NASA Flights Aid 1970 Census

NASA is aiding the 1970 U.S. Census with high-altitude aircraft flights over 26 cities, including San Francisco, gathering photographic data for census correlation studies.

Purpose of the 10-mile-high missions is to gather standardized data on urban areas and to correlate land usage with statistical data gathered during the census.

A four-engine USAF RB 57-F jet (Continued on Page 3)

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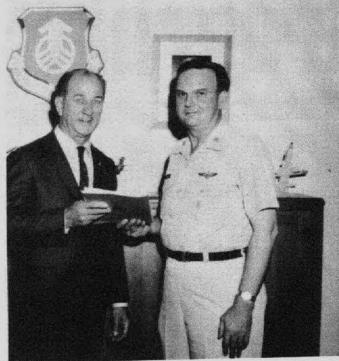
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THIRTY-YEAR SERVICE AWARD . . . Carl W. Tusch (left), Aerospace Engineer and Assistant Chief of the Air Force Systems Command Scientific Technical Liaison Office located at Ames, was presented with a 30-year pin and certificate at a ceremony held last week. The career service award was presented by Lt. Colonel William H. Trammell (right), Chief of the AFSC Liaison Office here. In talking about his civilian service with the U.S. Air Force Mr. Tusch made special note of his assignment at Ames which began almost 28 years ago. He began his Federal service on April 1, 1940, at Wright-Patterson Air Force Base where he was an aerospace engineer in the Structures Branch of the Aircraft Laboratory.

Mr. Tusch is a native of Grand Rapids, Michigan, and was graduated from the University of Michigan with B.S. and M.S. degrees in Aeronautical Engineering. He and his wife, Noreen, make their home in Los Altos. They have two sons, Carl Jr. and Earl, and a daughter, Mrs. Norma Mantle.

To Friends and Associates at Ames -

Thank you very much for the wonderful party Friday night when you gave me and my family the chance to celebrate in such good company. I will always feel a part of Ames, and the work continues at a vital pace so the change in a sense is not so drastic, but I very much appreciate the significance you gave the occasion by your presence, your expressions, and your generosity.

My only regret is that it was impossible to see and talk to each of you. Some of these missed opportunities I know from catching a glance of people at a distance but many I'll not know about because the numbers were so great. We'll remedy that when I come back from time to time - Thank you again for your display of kind regard and for your good wishes.

Sincerely,

Russell G. Robinson

"Thank You" Notes

'Dear Friends,

My deepest thanks for the thoughtful gifts presented to me at the buffet party on the occasion of my retirement from Ames. The handsome fiveband radio will be on hand wherever I go. The electric shaver is a useful gift to me. The pictures taken on this occasion with so many of my friends throughout the Center are treasures now and will be for years to come.

> Sincerely, Fred Tompkins"

Clarification of Ames-NAS Premises

The article in the last issue of "The Astrogram" entitled "U.S. Commissioner to Handle NAS Moffett Traffic Violation Penalties", prompted several inquiries about the boundaries and ownership of NASA Ames property. This is understandable, since the violations and fines described in the article are applicable to the Navy premises only.

Ames Research Center lies on acres of land owned by NASA-Ames and is separate and apart from the Navy property. With the exception of the small "island" of land housing the Navy warehouse and storage yard, the area bordered by Moffett Boulevard, Clark Street, Bushnell Street and Zook Road is owned by Ames, Ames' jurisdiction begins just inside the curb of these four streets. The streets themselves, and the Navy warehouse and storage yard area are owned by the Navy and are under the jurisdiction of the NAS Moffett Field Commander.

This means for example, employees at Ames driving on Moffett Boulevard, Zook Road, Clark or Bushnell Streets, or any of the streets bordering the warehouse and storage area, as well as the Navy area proper, are subject to Navy Traffic Regulations, and penalities if violations are committed.

Fra Mauro Landing Site for Apollo 14 The Fra Mauro region of the Moon

The Fra Mauro region of the Moon has been selected as the landing site for the Apollo 14 mission.

Dr. Thomas O. Paine, NASA Administrator, made the choice following the recommendation of the Apollo Program Site Selection Committee.

Fra Mauro was the intended landing site of the unsuccessful Apollo 13 mission in April.

Dr. Paine said information so far developed by the Apollo 13 Review Board indicates that Apollo 14 cannot be launched before December 3.

The flight crew of the Apollo 14 will be Alan B. Shepard, commander; Stuart A. Roosa, command module pilot; and Edgar D. Mitchell, lunar module pilot.

Fra Mauro is of great interest to scientists because it is expected to provide new information on the age of the Moon.

The landing site is in the hilly uplands north of the crater Fra Mauro. The lunar coordinates are 3.6 degrees south latitude by 17.5 degrees west longitude, about 110 miles east of where Apollo 12 landed last Nov.

Retirement Luncheon

A retirement luncheon honoring Stanford Hanscom, RFEEB, will be held at the Menu Tree on Tuesday June 9, at 11:30 am. For further details call RFEEB, ext. 2239.



A WINNER . . . James R. Nelan (right) of the Materials Processing Branch, was a second prize winner in the Captain's Fourth Annual Golf Tournament sponsored by Union Carbide Coating Materials. Seven separate regional golf tournaments were played and three handicap groups competed in each. The local tournament was played at Pleasant Hills Golf Club in San Jose. Mr. Nelan is pictured receiving his prize of a Kangaroo leather golf bag from J.G. Kucsma, area representative for Union Carbide.

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Room 134 Admin. Mgt. Building Phone 2385

The Astrogram is an official publication of the Ames Research Center, National Aeronautics and Space Administration, Moffett Field, California, and is published bi-weekly in the interest of Ames employees.

> Editor Dot Evans Reporters NASA Employees

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Personnel Corner

INCENTIVE AWARDS PROGRAM

The Incentive Awards Program is of great importance to government agencies and the individual employee. To the agency, it is a means of economizing in the use of man-hours, money and materials, and of rewarding superior employees. To the employee it is a means of suggesting areas of improvements that would perhaps otherwise go unnoticed, and of receiving acknowledgement for superior performances.

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Under the revised 1969 Incentive Awards Program, there are two types of monetary awards: for adopted suggestions, and for superior performance. The new term for the latter is the "Special Achievement Award". The recipient of the Special Achievement Award has shown performance that substantially exceeds normal requirements in the important job elements, either as a one-time occurrence, or over a sustained period of time. It also covers awards for special acts or services and group achievements. Awards are based on a scale established by the Civil Service Commission and are compiled according to the grade of the employee, or intangible or tangible benefits to the government.

Superior performance is identified through supervisory performance evaluations and periodic management reviews.

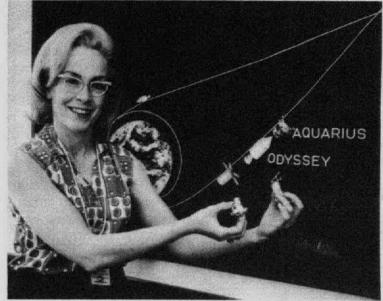
Incentive Awards are given for employee suggestions which concentrate on efficiency, economy, and effectiveness in carrying out the mission.

There has been some confusion as to the type of suggestion considered under the Incentive Award Program. Ideas that relate to employee services or benefits, working conditions, buildings and grounds, and routine safety practices are part of the normal employee management communications. They can be written as a memo and promptly routed to the responsible management officer such as the cafeteria manager, building manager, or safety officer. If an idea of this nature turns out to have particularly significant benefits, it can be recommended for a special achievement award.

Incentive awards will be granted for adopted suggestions that directly conserve man hours, supplies, equipment operating costs etc, or that contribute directly to carrying out the mission.

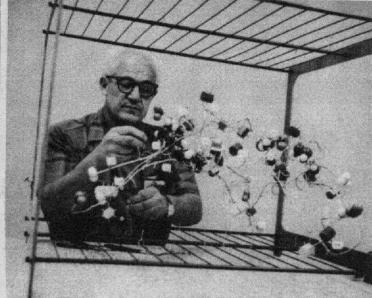
To make the suggestion award more significant to the recipient and to the agency, the minimum

An Introduction to ARA Executive Board Members



ARA MEMBER... Barbara Perryman, Public Affairs Office, knows NASA's interests cover a lot of space. But the Ames Recreation Association limits its interests to Ames' employees. Make your suggestions public to Barbara, ext. 2671.

Ed. Note: The three remaining members of the ARA Board will be introduced next week.



ARA MEMBER... Andy Bogart of Materials Research Branch looks over an intricate model he is building, of a DNA enzyme. The Ames Recreation Association isn't that complicated. Andy can build the effectiveness of the ARA, with your suggestions. Call him on ext. 2944.

FLIGHTS AID CENSUS (Continued from Page 1)

assigned to the Manned Spacecraft Center's Science and Applications Directorate, has conducted surveys for the U.S. Geological Survey and will fly over other cities in the overall program conducted in cooperation with the Departments of Agriculture, Interior and Navy.

SOFTBALL

.....by Mike Green

The Ames Softball Team ended a two losing streak by clouting the Mary Manor team by a score of 14-1. Roger Hedlund and Bob Bell led the hitting attack with three hits each. Bruce Ganzler and Steve Kanally each added two hits to the Ames total of 13 hits. One of Hedlund's hits was a grand slam home run while Ganzler added a triple.

On Wednesday, May 27 Ames dropped a close ballgame to Hewlett Packard by a score of 3 to 1 at McKelvey Field. Ames played a good defensive game but could not generate an offense. Roger Hedlund made a fine throw from center field to cut down a runner trying to score on a base hit.

award level was raised in 1969, to \$25 and the minimum level of benefits required for an award increased to \$250.

Suggestions are evaluated and adopted or rejected by the supervisors in whose organization the idea is relevant. The Incentive Awards Committee reviews suggestions and recommends awards.

JOGGERNAUTS

. . . . by Jim Woodruff

The Golden Gate Park Centenniel eight-mile run and four-mile senior run (for those over forty) were run simultaneously May 16. Bruce Castle finished the eight-mile run in 53:45 Vic D'Aloia ran the four-mile race in 26:16, sixteenth of thirty one competitors, and then completed the eight-miles in 58:42.

The seven and three quarter mile Bay to Breakers race across San Francisco, Sunday May 24, was the first race in which the Joggernauts were officially represented. Over 1300 closely packed runners crowded the starting line at Howard and Spear Streets. The runners jostled for position but were soon striding, and soon perspiring, in the roughest competition yet for this annual event.

Running for the Joggernauts were Bruce Castle, Vic D'Aloia, Paul Sebesta, Ted Passeau, Roger Hedlund, and Jim Woodruff, who had squandered that retroactive raise on fancy sweat clothes on which were displayed the NASA emblem. They found the Hayes Street hill has not been leveled any, but after running four miles they found Golden Gate Park as pleasant as ever. But longer than they remembered. The ocean breeze inspired a sprint to the Great Highway, where the Joggernauts struggled to hold their places to the finish. But Bob Johnson's son, Kenny, 14 years old and running for the San Jose Yearlings, left all the Joggernauts behind.

Here are the times and places of Kenny, Lew Mayhew, Massey Services; and the Ames runners: Kenny Johnson, 259, 49:36; Bruce

AIAA Officers to be Installed June 18

The newly elected officers of the San Francisco Section of the American Institute of Aeronautics and Astronautics will be installed in ceremonies to be held Thursday evening, June 18 at Sakura Gardens, Mountain View. Officers for 1970-71 are Chairman, John V. Rakich Hypersonic Aerodynamics Branch; Secretary, Richard H. Petersen, Aeronautical Missions MAD; Vice-chairman, Charles E. Wooldridge of Stanford Research Institute; and Treasurer, Frank M. Friedlaender, Lockheed Missiles and Space Company.

Reservations for the wine tasting party and buffet dinner preceding the installation ceremonies may be made by calling Ext. 2121, before June 16.

Ames personnel currently serving on the San Francisco Section Council include the Directors for Education, Gerald N. Malcolm; Operations, Louis J. Williams; Program, Mamoru Inouye; and Regional Affairs, Richard H. Petersen. Thomas L. Galloway is the Newsletter Editor, and Victor L. Petersen and J. Lloyd Jones, Jr. serve on the Advisory Board.

Castle, 276, 49:46; Vic D'Aloia, 344, 50:21; Paul Sebesta, 433, 51:28; Dan Baty, 478, 52:18; Lew Mayhew, 485, 52:25; Ted Passeau, 712, 56:24 Roger Hedlund, 784, 57:22; Jim Woodruff 799, 57:37. The winners' time was 39:29.

Ed. Note:

With this issue of "The Astrogram" we welcome Jeanne Richardson to our editorial staff. She will be correspondent for "Ames Airings" along with other writing assignments and duties in the office.

Ames Airings

.....by Jeanne Richardson

On Saturday, May 23, personnel and spouses of the Nonsteady Phenomena and Vehicle Aerodynamics Branches met at the home of IRENE THARPE (Aerodynamics Division) in Morgan Hill for an evening of delightful conversation, laughter, cold beer, and delicious steaks. Reports are that all those who attended had a wonderful time and would like to again thank Irene for being such a great hostess.....

Welcome back is in order to Genie Neel De Gabain, a former Public Affairs gal who is now gracing the Simulation Experiments Branch with her charm and secretarial abilities. After five months in the East, a marriage proposal and subsequent marriage gave her reason to return to California. We are glad she decided to also return

A "No-Host" cocktail party was given for Dr. Leonard Roberts by the Staff of the Mission Analysis Division (MAD) to wish him success in his new assignment as Director of Aeronautics and Flight Mechanics and to say farewell as Director of MAD, Rog Arno (the MAD artist) outdid himself again with various stickers for Dr. auto bumper Roberts' future use

Thomas Dines (Chief, Computation Division) spent two days and a night exploring the wilds of the Sacramento River, with thirty-one Boy Scouts and eight other fathers. The group began their adventure at Princeton, on May 23, with twenty rented canoes. The man from whom they rented the canoes, informed them that this was the first time the Sacramento had been navigated by canoe. So, ever ready to lend a helping hand, the Boy Scouts and fathers charted the whereabouts of the best docking spots for canoes, and how best to navigate the river. They found the river easy canoing compared to the Russian River. There were less rapids and less current. These conditions combined with the skill and experience of the explorers, resulted in an accident free trip.

The fact that there were no mishaps is partly due to the Boy Scout's preparatory training. They were taken to Lexington Dam and tested GOLF

....by Kay Bruck

The Sunol (Cypress) Golf Tournament on May 9, was played in three flights. The individual low net scores as reported by Chairmen John Hawkins and Bill Thompson were as follows:

First flight: first place, Fred Carpenter; second and third places went to Bob Carlson and John Hawkins who had tied scores; and fourth place, Otto Meckler.

Second flight; first place, Herb Ginoza; and a five-way tie for the rest of the places went to Ed Courtney, Howard Matthews, George White, Don Humphry, and Ben Tyson.

Third flight: first place, Bill Page; second place, Bert Nevotti; third place, Ed Tischler; and fourth place, Gene Garis.

Closest-to-the pin prize went to Jack Lee.

On Opening Day at Calero Hills (Ames golf tournament scheduled there in November) we had representation by the Sheaffers and the Courtneys and we note with pride that Pete Courtney came in with the low gross for the women's scores.

SUMMER BOWLING

....by Dennis Riddle

The current standings for the All-Ames Summer Bowling League

TEAM	WON	LOST
The Dirty Rugs	8	4
Team #1	8	4
Bowling Bums	6	6
Vikings	5	7
Raiders	5	7
The Stars	4	8

Bowled May 26:

Men's high series: Hank Cole, 545; Frank Cleary, 500; Dick Parker,

Women's high series: Jan Konrath, 576; Judy Long, 457; Jeanne Clem-

Men's high games: Hank Cole, 204 and 195; Bill Gilwee, 191; George Falkenthal, 191.

Women's high games: Jan Konrath 228 and 180; Jeanne Clemson, 171.

for swimming ability, then given paddling and ditching training.

Having traveled eighteen miles the first day, they docked and spent the night at Colusa State Park. The next day, they ended the trip fifteen miles below Colusa.

WANT ADS

The Astrogram's ad section is provided as a personal, non-commercial service to Ames employees. Advertiser must be identified by name, extension and organization. The name may be left out of the ad but is needed for records. Ads must be submitted in writing to The Astrogram, N-241-4, by Thursday, a week before publication. The advertiser's home telephone number must be provided as a point of contact except in carpool notices.

AUTOMOBILES

For Sale-1954 Ford stationwagon V8, A.T., radio \$150. Call 248-1527.

For Sale-1961 Chevrolet Biscayne V8, four door Sedan, radio and heater. Body and upholstry in good condition, engine runs fair, \$100. Call 377-7473, after 4:30 pm.

For Sale-1965 Austin Healy Sprite, excellent condition, rebuilt engine, radio and heater, new wire wheels, asking \$850. Call 248-5504, evenings and weekends.

For Sale-1969 Chevrolet Kingswood Impala, 9 passanger, air power brakes and steering, 50,000 mile warranty, only 16,500 miles, \$3100, 19321 Brookview Drive, Saratoga or call 253-9621.

For Rent-Historic Donner Pass Region of the Sierra Cabin with all the modern conveniences, quiet location, two lakes within walking distance, use of canoe included. Call Leo Poppoff, 323-2375.

For Rent-High Sierra Lake region, mountain cabin, Call 243-7377. After 5 p.m.

For Rent-Taboe City, vacation cabin, 2 bedroom, furnished, walk to beach or marina, \$90 per week, \$40 per 2 day weekend. Call 328-4642.

For Rent-West Tahoe, Chamberlands, Vacation cottage, 3-bedroom, 2-bath, washer-dryer, sundeck, walk to private beach, sleeps 9, \$125.00 a week in June, Call 258-1882.

MISCELLANEOUS

For Sale-Men's Ice Skates, lic, Stanzione boots, AB special blades. \$25, Call 328-4642.

Wanted-Four smog haters for a car pool from Cambrian Park in San Jose; 7:30 shift. Curt Muchl

For Sale-2 single beds. Mattress, box springs, and frame, \$30, each, Diningroom table and 4 chairs walnut finish and black wrought iron, \$20. Call

For Sale-Car Cooler used on only two vacations, cost \$39, will sell for \$15. Call 736-3984

For Sale-Sears lawn mower, 2 cycle rotary, works fine, \$15. Call 736-3984.

For Sale-GE gas dryer, 5 years old, \$35. Set of Great Short Stories (6 volumes) and set of Junior Classics (10 vols.) bot Collier's Popular Edition, all for \$30. GE brown 11 cubic foot refrigerator, good condition, \$65. Call 378-2002

For Sale-Double-size bed (box springs and mattress) firm; maple headboard and foot board, white Bates bedspread, all for S&O. Cail 252-7476.

Wanted- Car Pool from vicinity of Churchill Ave. Palo Alto, two or three days a week, Call Max Loewenstein, ext. 3004.

For Sale-Swimming pool, (Sears) 42 inches high by 12 foot diameter (less liner); filter, skimmer, vacuum cleaner, 12 foot hose, all for \$75. Electric guitar, amplifier and case, all for \$50. Items can be seen at 3186 Durant Avenue, San Jose, Calif. or call 225-4065.

------For Sale-15 foot Whitehouse ski boat, 40 hp Johnson motor, tilt trailer, skis, boarding ladder, extra gas tanks, \$400. Call 968-1060.

For Sale-Ricchmatic 225 Twin Lense Reflex Camera 2 $1/4 \times 2 1/4$ inches, complete with flash unit, new condition \$78.50. Call 876-3195.

For Sale-Two 700X15 Travel Trailer Tires complete with tubes and flaps, both for \$10. Call 867-3195.

For Sale-Camping trailer, folding type, excellent condition, very reasonable. Call R. Krause 967-

For Sale-Power mower, 18 inch reel type, Toro "Sportlawn", excellent condition-\$75. Call Jack Bonnell at 967-4286.

SOFTBALL

.....by Grantland Wheat

Ames softball history was made May 20 as Space Science, losers of at least 13 games in a row, shocked the 1969 runners-up TGD by a 15-8 margin. The Spacemen went into orbit in the second inning scoring 10 runs on five singles and five homeruns. Then only one week later these same men from SS almost shot down the defending champion Pumas, However, an oxygen leak and three errors in the sixth inning led to three Puma runs, bringing Space Science back down to earth on the short end of a 5-2 score.

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May 19 the Mighty Instrumentals came from behind to beat a good Aero team 9-8. George Grant of the I's went from Game Goat to Game Hero on the same play. Playing at buck-short, George dropped the "final out" fly ball, but recovered to end the game by throwing out the would-be tying run at home-

Aero came back May 26 to vent their frustration on RFE, clobbering them 20-5. Aero's Jimmie Myers smashed two homeruns to lead the

League standings as of May 29: Pct. GB L 0 1.000 Fighting Pumas 2 1.000 Instrumentals 0 .500 1 1 Aero .333 11/2 Space Science 1 2 .000 11/2 0 TGD .000 2

Motorcycle Riders

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Anyone at Ames interested in forming a motorcycle club is asked to contact Del Williams or Jim Peterson, ext. 2944 or 2936.

MICHAEL'S JEWELRY: Special through June-Diamonds all sizes and qualities cost plus 10%.

For Sale-Attention Stamp Collectors, many unused old, U.S. special issue stamps for sale at only twice face value. Call Helen Kelton, 592-2388.

For Sale-\$200 European hair wig, natural pale red medium length, adjustable, \$35. Pink crystal two strand necklace and earrings, \$8. Black genuinc alligator handbag, about 10 inches wide, originally \$60, carried twice, \$20, Material for sofa slipcover, about 19 yards, 48 inches wide, green black and white plaid, plus zippers, cording and thread, \$18. These items are donations to a charitable organization, Call 948-7548,

For Sale-Black and White portable T.V., 1 year old but used for only one month, Paid \$150, will sell for \$75, with stand, Excellent condition, Call Ray Sargis, 379-3206.

For Sale-J.B. Lansing walnut speaker enclosure. 23x14x12 inch, take 10 or 12 inch speaker, plus tweeter, \$35; intercom system, \$20, desk \$20. Call 323-2080.

For Sale-2 Victorian rattan chairs, enameled white, \$3 each, 2 wicker chairs, painted black \$5 each. Ideal for patio. GE iron, not steam iron, excellent condition \$5. Call 322-4849.

Wanted-Home for Scottish Terrier, 4 years old Pedigree, registered, with AKC, well trained, Call S. Davis 257-6312.



astrogram astrogram

NUMBER 16

National Aeronautics and Space Administration . Ames Research Center, Moffett Field, California

Possible Spin-off from NASA Sensor Dr. Roberts Named Director of

A sensor developed for aviation use by NASA's Electronics Research Center (ERC) is being considered by the Interior Department's Bureau of Mines for use as a mine safety instrument.

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The sensor measures air speed at low speeds and was developed primarily for V/STOL (vertical/ short take off and landing) aircraft. The unit is intended to measure air speed during hovering and such slow flight operations as vertical descents and landings.

The aircraft airspeed sensor could also be used effectively in coal mines to measure the low speed movements of ventilation air. Such measurements are needed to calculate the volume of freshair directed to the coal "face" areas of underground mines, where adequate ventilation is required to dilute and carry away explosive gas and to control harmful dust.

The sensor is light, rugged, has no moving parts and no electrical components. Because of these features, it might be possible to develop the indicator as a semi-portable or hand-held device suitable for inspecting specific areas of a mine.

NASA low-speed sensor would not be itself detect the methane but would provide an accurate reading of the slow air flow within the mine.

AIR POLLUTION

Another ERC program, which uses a laser beam to detect air pollution, is applicable to mine health and safety because it can detect specific contaminants, including flammable and noxious gases, in the air.

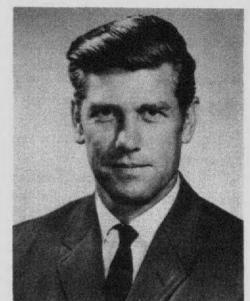
A pencil-thin beam of laser light has been transmitted more than a mile through the atmosphere and returned or "folded" by mirrors to a recording device.

The precise amount of laser radiation absorbed by the pollutant is measured by the recording device and used to show the identity and concentration of pollutants in the air.

The ability to detect methane and other hydrocarbon gases with a laser was demonstrated by Ames scientists when a small, portable heliumneon laser successfully detected seepage from natural gas lines.

Aeronautics&Flight Mechanics

The appointment of Dr. Leonard Roberts as Director of Aeronautics and Flight Mechanics was announced recently by Dr. Hans Mark, Ames



DR. LEONARD ROBERTS

"Parasol-Popping" Flight Experiment Set

A "parasol-popping" flight experiment to study the characteristics of a parachute designed to help land instruments on Mars at press time was scheduled to be rocketed over the Atlantic Ocean no earlier than June 17.

The SPED (for Supersonic Planetary Entry Decelerator) test will be launched from NASA's Wallops

The parasol is a deployable fabric and metal aeroshell (flattened cone) that opens like an umbrella. Much as a person holds an umbrella low and pointed into a strong wind, this aeroshell will be aimed along the flight path to serve as a decelerator, or aerodynamic brake.

Purpose of the SPED flight is 1) to study the deployment characteristics of a parachute designed to operate in a thin atmosphere in the disturbed wake of a blunt-shaped spacecraft and 2) to verify the new engineering technique (the erectable aeroshell) for testing parachutes or other drag devices attached to simulated planetary entry spacecraft.

He succeeds Russell G. Robinson who retired at the end of May after 40 years with NASA and its predecessor agency, the NACA (National Advisory Committee for Aeronautics). Mr. Robinson had held the Aeronautics directorship since 1950.

Dr. Roberts has been Director of NASA's Mission Analysis Division since 1966. MAD, located physically at Ames, is part of the NASA Headquarters Office of Advanced Research and Technology, Washington,

Prior to 1966, Dr. Roberts was for almost seven years Head of the Mathematical Physics Branch at Langley Research Center. He began his Federal service there in 1957 as an Aeronautical Research Engineer. Before joining the Langley Center he was a Research Associate at Massachusetts Institute of Technology for two years. His Post-Doctorate Research at MIT included work in shock wave propagation in gases and a study of aerodynamic

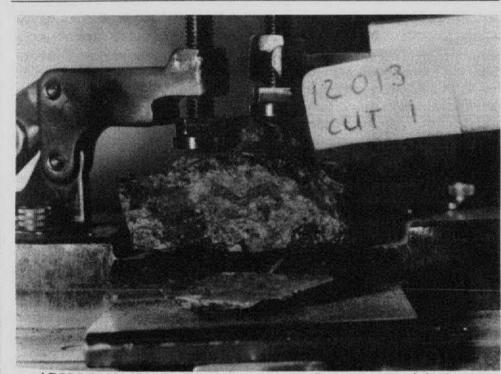
Dr. Roberts is well-known in the fields of aerodynamics, atmospheric entry, and lunar and planetary landing. He has served as a technical advisor and consultant to government agencies, private industry, and educational institutions in the U.S. and abroad.

Born in Prestatyn, North Wales, in 1929, Dr. Roberts was educated in England and received his B.S., M.S., and Ph.D. Degrees from the University of Manchester.

Dr. Roberts and his wife, Barbara, make their home with their two children in Sunnyvale.

Keaucea

The remaining five percent income tax surcharge will be eliminated under the Tax Reform Act of 1969, Public Law 91-172, effective July 1, 1970. In addition, the income tax exemption has been increased from \$600 to \$650. The reduced withholding will be reflected in the pay checks scheduled to be mailed by the U.S. Treasury on



APOLLO 12 MOON SAMPLE . . A close-up view of the lunar sample brought back from the Moon which has been found to be chemically unique, and possesses the highest concentration of naturally radio-active elements yet observed. The rock is about the size of a lemon, weighs three ounces, and measures oneand-a-half inches long, an inch wide and three-quarters of an inch thick. Its uranium, therium, and potassium concentration is more than 20 times that of any other lunar rock yet found on the Moon. Note the heterogeneous texture of this sample as depicted by the various color regions. This texture indicates that the rock has had a complicated history. Apparent age is 4.6 billion years.

Retirement Jobs - Non Organization Profit

Experience and Ability are Age-

Taking this fact as a motto, an unusual non-profit corporation is extending the careers and lives of hundreds of retired persons who are not ready to be put on the shelf. Founded in San Jose area about six years ago, Retirement Jobs, Inc. may well spread across the state and perhaps even across the nation. This organization acts as a free placement agency, finding jobs for men and women over 60 who want to work in order to keep busy or to earn money to supplement their annuity which may have been cut by taxes and inflation.

Retired typists and tycoons, carpenters and clerks, are being placed in full-time, part-time or temporary jobs in which their experience and skills are valuable. The satisfaction of continuing to do useful work undoubtedly prolongs many lives. It has been proven that inactivity causes rapid emotional, and mental deterioration. Employers, too, are finding Retirement Jobs a life-saver.

A food machinery manufacturer hired a retired canning engineer to build specialized machinery. A San Jose housewife has a room full of custom-made nursery furniture, thanks to the talents of an elderly but active cabinet maker.

Today, over 1200 members are listed in the organization's five offices. Their 1970 goal is 2,500 members and 2,500 jobs filled.

Offices of Retirement Jobs, Inc.

San Jose, Old Court House, 161 N. First Street, telephone 294-3558; 436 Waverly Street, Palo Alto, telephone 326-6180; Main and Tait Streets, Los Gatos, telephone 354-2626; and 1616 El Camino Real, San Mateo, telephone 345-0305.

THEATRE PARTY

ACT to Aid Boy's Club

The American Conservatory Theatre (ACT) will present a performance of Oscar Wilde's comedy, "The importance of Being Earnest", at the Paul Masson Mountain Vineyard in Saratoga, on Sunday, July 12, at 3 p.m., to benefit the Hunter's Point Boy's Club.

Tickets are \$10 each and are tax deductible. They may be purchased by writing Mrs. Huntley Soyster, 268 Filbert Street, San Francisco 94123. Checks should be made payable to the Hunters Point Boy's Club. A steak dinner is also available at the Vineyard for an add-

ARA to Sponsor Night at Ice Follies Mail Service

The Ames Recreation Association (ARA) is sponsoring an Ames night for a performance of the New Shipstads and Johnson Ice Follies at the Oakland-Alameda Coliseum on Wednesday, July 8, at 8 p.m.

Special guest star with the Ice Follies is Peggy Fleming, U.S. Olympic Gold Medalist, with Ron and Cindy Kauffman, U.S. Pair Champions.

The ARA has a block of tickets for \$5.50 seats which will be sold to Ames employees for \$4.50. Tickets may be purchased from Bob Kuhlmann, Room 213, Building 210. Call him on ext. 3081 for details. Cut off date for purchase of tickets is June 26.

ARA Sport Survey Report Tallied

The results of the recent ARA questionnaire (Ames staff memo # 70/71) have been tallied. More than 50 percent of Ames employees responded to the questionnaire. The ten most popular sports are:

Sport	Men	Women	Total
Tennis	159	39	198
Golfing	131	29	160
Swimming	118	31	149
Softball	74	10	84
Bowling	63	19	82
Volleyball	64	16	80
Handball	69	4	73
Jogging	55	5	60
Basketball	55	0	55
Fishing	43	2	45

Preliminary recreational area sketches are being prepared for discussion. For those who are interested, softball and volleyball are now available at the recreational area



Special Discounts Offered Personnel at Ames

BULBS: Hollands Glory, Inc., bulb growers and exporters of Sassenheim, Holland are offering Ames employees a special flower bulb plan of over 103 varieties. Bulbs are shipped directly to the employee's home during September and October for fall planting. Costs for postage and handling at port of arrival are taken care of by the vendor, and are included in the original price as quoted. Order forms and catalogs with full details are available in The Astrogram Office. A bonus of extra bulbs will be given without charge for all orders received before July

located at the southeast corner of the Center, north of the Navy dirigible hangar. Your ideas and suggestions will be appreciated; call Al Pucinelli, at ext. 2229, or any other member of the ARA.

Iraining Announcements

SPECIAL SEMINAR SERIES - Held in conjunction with the Stanford-Ames Summer Faculty Fellowship Program, Life Sciences Conference Room B39, 3:30 p.m.

·Tuesday, June 25: Dr. Carl Sagan, "An Introduction to Problems of Interstellar Communications." (Changed to Auditorium)

-Tuesday, June 30: Dr. A.G.W. Cameron, "The Origin and Distribution of Planetary Systems."

The first training course to be presented at Ames on closed circuit television will begin June 30 in the TV classroom, Building 241. The new system will be featured in a forthcoming article in "The Astrogram."

TV COURSES:

ACE (Association for Continuing Education): "Personal Financial Development," beginning Tuesday, June 30, 5:30-7:30 p.m., for 12 weeks. Tuition: \$50, plus an additional \$25 fee for textbook, handout materials, stock value computer, and six months free subscription to the Financial Dynamics Quarterly Newsletter.

STANFORD - AEROSPACE TECHNOLOGY AA298:

-Wednesday, June 24: Dr. Robert H. Cannon, "The Problems and Goals of Civil Transportation."

-Wednesday, July 1: Professor Lyle M. Nelson, "The Importance of Satellite Communications to India."

Below are a few suggestions, which if adopted by each staff member, will improve the flow of mail within the Center's distribution sys-

- · Address all mail clearly, using a mail stop number in each case, i.e., 241-8, 241-9. DO NOT USE PACKAGE DELIVERY POINT (241-A, 239-B).
- · Mark off the previous mail stop on messenger envelopes before using them.
- · Special messenger service must be used for just that. This service is being greatly abused, i.e., calls for special deliveries of flowers, parts, baseballs, soiled shop coats received. Needless to say, when the special messenger answers a call of this nature, he is not available for a legitimate call. There will be no special messenger service provided after 4 p.m. For special messenger service call 2386.
- · Money forwarded in the Messenger Envelope will be done at sender's risk. Messengers will not be held responsible for any money that is lost. There are many instances where money is placed loosely in the envelope without sealing and this money, especially coins, can drop out in handling.
- DO NOT SEND ANY BOXES OR LARGE PACKAGES THROUGH THE MESSENGER SERVICE, USE THE PACKAGE DELIV-ERY SERVICE. The Center's delivery service has been expanded and should be used for transporting packages from one building to another. Make certain delivery point code is used and NOT the mail stop. The delivery point number is available in each edition of the stock catalog. For pickup of packages, call 3210.

DISCOUNT CARDS

DISNEYLAND: Magic Kingdom Club cards for special benefits at Disneyland.

FRONTIER VILLAGE: Frontier Wonderland Club Cards for special benefits at Frontier Village.

SANTA CRUZ BEACH and BOARDWALK: Beachcomber Club cards for a 30 percent discount.

Admin. Mgt. Building

The Astrogram is an official publication of the Ames Research Center, National Aeronautics and Space Ad ministration, Moffett Field, California, and is published bi-weekly in the interest of Ames employees.

> Editor Dot Evans Reporters NASA Employees

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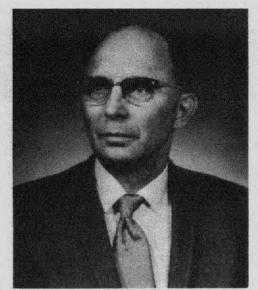
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98

WILLIE L. WHITE, Jr.
Reproduction Services Branch



ALBERTA Y. ALKSNE Theoretical Studies Branch



FRANK E. DU BOIS, Jr. Atmospheres and Astrophysics Branch



TORIBIO G. GONZALES Computer Operations Branch

Four Additional Equal Employment (

Four Ames employees were appointed recently by Dr. Hans Mark, Director, to serve as Equal Employment Opportunity (EEO) Counselors, bringing the total to eight counselors available at the Center. Each of the four had served previously as EEO committee members.

The new appointees are Willie L. White, Jr., Reproduction Services Branch; Toribio G. Gonzales, Computer Operations Branch; Alberta Theoretical Studies Y. Alksne, Branch; and Frank E. DuBois, Jr., Atmospheres and Astrophysics Branch. They join counselors Jessie C. Gaspar, Programming Branch; Joseph P. Licursi, Electronic Instrument Branch; Reginald F. King, Research Facilities Electrical Engineering, Branch; and Manuel M. Orozco, Advanced Aircraft Programs Office. Mr. White has been elected chairman of the group as a whole, which is called the Committee of Equal Employment Opportunity Counselors.

Their previous experience in EEO work has given each of the new counselors an insight into the program and its future. Foremost in all their minds is that to be fully effective, the EEO counselor's charter must be clearly spelled out and understood by everyone in the organization. They are seeking full understanding of their role as counselors by both management and employees to carry out their counselor functions more effectively.

According to guidelines established by the Federal government, program objectives must be short-and long-range alike to achieve success. The EEO counselors need management support and the guidance of the EEO officer. They must be separated from the formal complaint process so that each can be readily accessible to employees and be able to function effectively on an informal basis, handling problems

and trying to resolve them before they reach the formal complaint stage. Employees must discuss their problems with a counselor before they can file a formal discrimination complaint.

The role of the counselors is to serve as a bridge between employees and management. One responsibility is to try to clear up discriminatory problems brought to their attention by employees. This may be accomplished by discussing the problem with the employee, with the employee's supervisors or associates, if necessary, by advising the employee of the merits of the matters brought to his attention, and by finding solutions to problems where it is possible.

Responsibility for a successful EEO program at Ames is shared not only by the Director and the EEO Officer, Robert L. Pike, and counselors, but by every line manager and supervisor at the Center.

WILLIE WHITE

During an interview with the counselors, Mr. White stressed the fact that without the cooperation of the supervisors it is difficult to obtain enough information to make a fair judgment. "I am concerned", he stated, "that the managers frequently feel that the counselor is looking for problems. However, This is not the case, in his efforts to hear all sides of a complaint the counselor must be able to discuss the situation freely with all those involved."

Semantics is another concern of Mr. White's. He feels that all too often people react to the word discrimination by thinking only of the black man. "It is not the function of the EEO to deal exclusively with racial minorities; discrimination can involve any minority, including women," he said. "Complaints of discrimination, by anyone, should be directed to the EEO counselors."

He is particularly interested in "the little fellow." He feels that all should have the opportunity to advance and achieve to the limits of his potential.

Mr. White, who came to Ames in 1956, is presently the Foreman of the offset lithograph pressmen in Reproduction Services Branch. Prior to coming to Ames, he spent four years in the Air Force. He served as Special Supply Sergeant, and was active as a basketball player with Service teams.

FRANK DU BOIS

Frank DuBois, like other active men we know, is a Quaker. He has long been interested in helping people, and has been active in employee relations for over twenty five years. Joining Ames in 1945 he has worked for the Credit Union and Welfare Club. It was primarily through his efforts that, in 1947, the Welfare Club was established. He expressed great faith in the EEO program and feels that with the understanding and cooperation of all Ames employees the program will succeed.

TORIBIO GONZALES

Toribio (Toby) Gonzales, Computer Operations Branch was cautious in his hopes for the future of the program. He feels that a lack of communications is a major problem and must be resolved for the program to succeed. He also emphasized the counselor's function as a mediator, which reduces the need for formal complaints.

Mr. Gonzales has worked extensively with the Neighborhood Youth Corp at Ames. A recent study shows that a high number of youths working under Mr. Gonzales are successful in finding employment after leaving the Center.

Born on the King ranch in Texas, he was educated in Texas and Hawaii.

> ALBERTA ALKSNE Alberta Alksne, of Theoretical

Studies Branch, when first asked to serve on the EEO committee was "pleased and proud." When appointed as a counselor, she was still pleased and proud, but also cautious in her hopes for the future of the program. She feels that the acceptance and understanding needed for the program to function effectively, will come gradually.

Mrs. Alksne, who came to Ames during WWII, has a degree in Mathmatics from Stanford University. She is a well informed woman, who has traveled extensively and is interested in people.

Each of the new counselors expressed great confidence in the leadership of Dr. Mark, and Mr. Pike. It is felt that these men will provide the necessary administrative direction to assure the Program's success.

Jetstream Toastmasters

... by Jim Rogers

The semi-annual election of officers of the Jetstream Toast-master Club was held recently and the new officers from Ames are as follows: President, Adam Pietras, RFEE Branch; Educational Vice President, Harry King, R & D Contracts; Secretary/Treasurer, Joseph Auby, Facilities Services; and Sergeant at Arms, James Rogers, REE Branch,

District Four, which is comprised of some 58 clubs, elected Guy Ferry of the Planetology Branch as District Lt. Governor for Education.

Congratulations to all the new officers.

The Jetstream Toastmaster Club still meets at the Kozy Grotto in Mt. View on Wednesday at 11:45 a.m., and there is always room for one more member. If you want to develop good speaking habits and techniques and become an effective speaker, Toastmasters offers the best opportunity.

Ames Airings

.....by Jeanne Richardson

FRANK PRIOR (RFE) and his wife Mary, spent 10 days relaxing at the Diamon Head Hotel in Hawaii, recently. Frank's daughter was a violinist with the Honolulu Symphony for three seasons, so Frank and his wife are very familiar with the islands. They found that one of their favorite spots, the Queens Surf, is being torn down to make room for a Frank said Waikiki had beach. changed quite a bit, unfortunately.

After Hawaii the Priors went to Southern California to visit friends and tour CBS and Universal Studios. They watched a pilot being made at Universal, and the filming of the "Dating Game" and "Adam 12" at CBS. After which, they took a stroll down the familiar streets of the Universal lots. They found themselves in Europe on one street, the Old West on another and finally a typical American street. A trip to Europe is on the calendar for next spring for the Priors.

The stork's been flying low over Ames again. We have two proud new papa's. STEVE VICE (REPRODUC-TION SERVICES) was handing out cigars wrapped in blue two weeks ago, and with good reason. On May 29, Jeffrey Steve (6 pounds, 1 ounce) was born in Kaiser Hospital. Steve claims his son arrived "just in time for lunch," at 11:04 a.m.

DON KORNREICH (Programs and Resources Office) was also handing out cigars, but his were wrapped in pink. Little Leah Beth Kornreich was born, like all tradition-respecting babies, at 4 a.m. on June 13 at Good Samaritan Hospital. After three boys, 6-pound 11 ounce Leah is a bit of a change for the Kornreich's.

LUCILE KREGEL (Personnel) just returned from a two-week jaunt around the country. Mrs. Kregel first flew to Milaukee for a visit with her son, daughter-in-law and new granddaughter, Susan Mary. Three short days later, she was off again to Omaha, Nebraska for her youngest son's wedding. After the formal candlelight ceremony, Mrs. Kregel left for her hometown, Clarion, Iowa. There she enjoyed a reunion with her father, two brothers and sister.

Mrs. Kregel was finally welcomed home with a party given by her family here.

Note:

Summer's here, and I would appreciate any news of vacations and exciting events. Please call "The Astrogram Office", ext. 2973.

GOLF

.....by Kay Bruck

The Pajaro Golf Tournament, on June 6 was a team effort with the best three net scores for the foursome being used as the team's score. Competition was very close as reported by Chairmen Clark White and Bob Sheaffer.

The team winning first place consisted of Feo Corsini, Bob Eddy, Dick Johns, and Don Davis. A threeway tie for second place went to the following teams: John Hawkins, Don Dust, Clark White and Bob Sheaffer; Paul Barasich, George Falkenthal, Jim Silver and Nelson Burrill; and Ed Stepnoski, Frank Prior, Don Humphry, and Sal Tardio.

Closest-to-the-pin on hole #14, went to Ruben Ramos. Owen Koontz had the low gross score; and Jim Nelan and Yukio Asato tied for low

A special golf tournament is being held on July 3 (holiday, at Spring Hills Golf Club, Watsonville. Interested persons should contact Jim Nelan, ext. 3017.

The next regular golf tournament will be at Aptos Beach, July 25.

SOFTBALL

.....by Mike Green

The Ames Softball team dropped a ballgame to Holiday Hut by a score of 7 to 3. A defensive letdown by Ames enabled Holiday Hut to score a number of unearned runs.

SCORES

On June 1, the Ames softball team beat United Technology Inc. in storybook fashion. Behind by a score of 3 to 3 with 2 outs in the last inning, Roland Duenas drew a walk. Mike Green followed with a single. Reuben Martell was safe on a miscue, allowing Duenas to score and then Steve Kanally beat out a hit to drive in Green, giving Ames a 4-3 victory. The steady pitching of Bob Corbett, complemented by some excellent team defense, stopped many possible UTI rallies.

MARTIAL ARTS CLUB

Martial Arts club is now forming instruction groups in Judo, Jujitsu and Karate. Classes are to be held at schools in nearby communities at special rates. Other groups may be formed if there is interest. Men and women are welcome. For further information contact the following committee chairmen: Judo, Pete Rushbrook, ext. 2953; Jujitsu, Janos Lanyi, ext. 2953; Karate, Les Tovani, ext. 2548.

Anyone wishing to join the Martial Arts club should contact Sherwood Chang, ext. 3152.

Don't Be A Victim!

Some employees have been surprised and dismayed by the loss of personal items and money which have been left unattended during the work day as well as non-work per-

All personnel are cautioned that it is their responsibility to provide for the safekeeping of their money, jewelry, portable radios and the like to avoid these unfortunate disapear-

SUMMER BOWLING

....by Dennis Riddle

The current standings for the All-Ames Summer Bowling League:

TEAM	WON	LOST
Dirty Rugs	13	7
Number Ones	12	8
Stars	12	8
Vikings	11	9
Bowl'n Bums	6	14
Raiders	6	14

Bowled June 9:

Men's series: Francis Genovia, 568; Howard Garrison, 540; Dennis Riddie, 516. Men's Games: Dennis Riddle, 211; Howard Garrison, 211; Francis Genovia, 202.

Women's series: Judy Long, 505; Ann Teshima, 482; Jeanette Remington, 454. Women's games: Jeanette Remington, 180; Ann Teshima, 180; Judy Long, 174.

SOFTBALL

....by Grantland Wheat

The Mighty Instrumentals musseled their way to sole possession of first place with two solid victories. June 4 the Big I defense combined with pitcher Spencer Shaw to set a slow-pitch record, holding TGD to a mere six hits, while winning 13-1. Vard Holland connected for a monster homerun over the grandstand in left-center field, over 300 feet away. Then, June 11, the Mighty I defense choked off an RFE rally to chalk up their fourth straight victory, 9-4.

The Fighting Pumas stayed a step behind the I's, downing stubborn TGD by 7-4.

Meanwhile, Aero and shank-bitten Space Science played hot-potato with the game ball as both defenses went on strike June 2. After the dust had settled, Aero learned that they had won 19-16, despite blowing a six-run lead earlier, and going five down at one point.

League standings through June 12:

	W	L	Pct.
Mighty I's	4	0	1,000
Fighting Pumas	3	0	1.000
Aero	2	1	.667
Space Science	1	3	.250
RFE	0	3	.000
TGD	0	3	.000

WANT ADS

The Astrogram's ad section is provided as a pernal, non-commercial service to Ames employees Advertiser must be identified by name, extension and organization. The name may be left out of the ad but is needed for records. Ads must be submitted in writing to The Astrogram, N-241-4, by Thursday, a week before publication. The advertiser's home tel phone number must be provided as a point of contact except in carpool notices.

AUTOMOBILES

For Sale-1956 Corvette, hard-to-find classic model in beautiful condition, all around. Removal hardtop, V8, AT, 4 new tires. May accept Pickup in trade. \$1400, cail 257-4720, evenings and weekends.

For Sale-1966 Plymouth Fury II, Station Wagon, new tires, \$1300, call Curt Muchl, 377-2006.

For Sale-1965 VW, Good condition, \$600. Call 967-9479, after 7 p.m.

For Sale-1962 Corvair Monza, 4 speed transmission, 2-door, \$195. Call 258-2752, after 5 p.m.

For Sale-1963 FordFairlane 500, V8, 2 door, hardtop, AT, PS, \$300. Call 734-2784.

For Sale-1966 MG-Midget, new tires, brakes, paint and top. Radio, heater, wire wheels and 31 mpg. Excellent condition, call Bill Williams at 257-8891.

For Rent- Cupertino area, unfurnished 3 bedroom house with large family room and large yard, Available by June 15, 1970. \$235 per month, call 257-5492.

For Rent-Tahoe City, vacation cabin, 2 bedroom furnished, walk to beach or marina, \$90 per week, \$40 per 2 day weekend, Call 328-4642.

For Sale-"House and Garden House" \$22,500, 2 bedroom, 1 bath and convertible den-play-room bedroom; spacious brick-floored Florida room and planter, ideal for informal meals; L-shaped living room and dining area; overlooks back yard and tar bark play area; low-miantenance yard-51 X 105. 15 minutes from Moffett. Can assume 7 1/2 % PHA at \$18,500. Near Lawrence Expressway & Highway 280. Call 257-8741 for an appointment. Close to 3 schools.

For Rent-West Tahoe, Chamberlands, vacation cottage, 3 bedroom, 2 bath, washer-dryer, walk to private beach, sleeps 9, available July and August, Call 258-1882.

For Rent-Mountain cabin on High Sierra Lake. Phone 243-7377, after 5 p.m.

MISCELLANEOUS

For Sale - White porcelin toilet with seat and plumbing fixtures. Ideal for cabin, \$5, call 739-8973 anytime.

Wanted-Car Pool from the vicinity of El Monte Avenue, Los Altos, Call Stanley Sandler, ext. 3006.

For Sale-Refrigerator, GE, 17 cubic inches, good condition, \$25, Call Don Goodsell 968-1280.

For Sale-Sacrifice priceless antique North China hand made jewelry: old amber pendant, \$250; Buddhe ivory and old enamel pendant earrings, \$100; old enamel necklace, \$150; amethyst bracelet and ring, \$100; rose quartz necklace and earrings, \$100; jade pendant, earrings, and bracelet, \$250. Russ Barton, 323-0690, evenings.

Wanted-Ride from vicinity of Oregon Expressway. Waverly and Southcourt in Palo Alto after July 1, for summer only. Contact E. Bugna, ext. 2713.

For Sale-Backpacks with aluminum frames (3); 2 compartment nylon packs with 6 outside zipper pockets, nylon sleeping bag covers, fast release belly bands, cost \$130, will sell \$25 each; contact Herb McGinnis,

"Thank You" Note

I would like to take this opportunity to thank each and everyone who helped to make my retirement luncheon and gift the successes they

The gift certificate for a custom made Tow Bar (not a trailer hitch) to enable us to tow a small car behind our Dodge Motor Home during our travels was the best gift we could have received.

Sanford (Sandy) C. Hanscom RFEE Branch

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